

Appendix A: Computer Concepts: What is a Computer?

- A [] is made up of components that include the computer, input, and output devices. Computer systems come in many shapes, sizes, and configurations. The computer you use at home or in school is often called a []. Desktop computers often have a "computer case" or a [], which contains processing devices, memory, and some storage devices.
- There are two main types or [] for personal computers.
 - The [] computer, or [], is produced by Apple Computer, Inc. and runs the *Mac operating system*.
 - The [] is a Windows-based computer produced by many different companies, but which runs the *Microsoft Windows operating system*.
- The [] is the main software or system software that runs a computer and often defines the type of computer.
- The physical components, devices, or parts of the computer are called []. The main parts are the [] (CPU)¹, the monitor², the keyboard³, and the mouse⁴. [] are additional components, such as printers and scanners. Peripherals are not [] to the computer, but enhance the computer.

Processing Devices

- The central processing unit (CPU) is a [] that processes data and carries out instructions given to the computer.
- The [] includes the wiring and pathways by which the CPU [] with the peripherals and components of the computer.
- The CPU is [] on the motherboard of the computer. The motherboard is where the computer [] and other vital electronic parts are stored.

Storage Devices

- Storage devices are both [] and [] devices. The main storage device for a computer is the [] that is usually inside the system unit.
 - The hard drive is [] storage; it is not removable from the computer.
 - The hard disk drive reads and writes [] to and from a round magnetic platter, or disk. The data is digitally [] on the disk as a series of []'s and []'s.
 - A [] stands for a single character of data. A typical hard drive for a computer system for personal use ranges from 80 gigabytes (GB) to 250 gigabytes.

Output Devices

- The typical monitor for today's system is a [] monitor similar to a television.
 - It provides a very sharp picture because of the large number of tiny [] called pixels, which make up the display, as well as its ability to present the full spectrum of colors.

Name _____ Date _____ Period _____

- _____, the term that tells you how clear an image will be on the screen, is measured in _____. A typical resolution is 1024 × 768. A high-quality monitor may have a resolution of 1680 × 1050.
- The size of a monitor is determined by measuring the _____ of the screen. _____ have smaller monitors than _____ computers. A laptop monitor may be 13", 15", or 17". Desktop monitors can be as large as 19"- 24" or even larger.

How Computers Work

All of the input, processing, storage, and output _____ function together to make the _____, storage, and distribution of data and information possible.

Data and Information Management

Data is _____ entered into and manipulated or processed within a computer. Processing includes _____, such as adding, subtracting, multiplying, and dividing; _____, such as sorting data; and _____, such as presenting data for others in a chart or graph.

Memory

Computers have _____ types of memory—_____ and _____.

- RAM, or _____, is the silicon chips in the system unit that temporarily store information when the computer is turned on.
- RAM is what keeps the software programs up and running, and provides visuals that appear on your screen. You work with data in RAM up until you save it to a storage media device.
- ROM, or _____, is the memory that stays in the computer when it is turned off.
- ROM that stores the programs that run the computer as it starts or "_____."
- ROM holds the instructions that tell the computer how to begin to load its operating system _____.
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Speed

The speed of a computer is measured by how fast the computer _____ each instruction. There are several factors that affect the _____ of a computer:

- the speed of the _____, or the _____ speed,
- the _____ speed—the speed of the bus that connects the processor to main memory
- the speed in which data is written and retrieved from the hard drive or other storage media
- the speed of the _____ if you are working on programs that use a lot of graphic images.

The speed of a computer is measured in _____ (MHz) and gigahertz (GHz).

Processors are sold now by name, and each brand or series has its own _____.

Processor _____ include Intel, Motorola, and AMD. When you research processors and computers, you might see names such as Intel® Core™2 Extreme Processor QX6800, Intel® Core™2 Duo Processor E6700, Pentium® 4 Processor Extreme Edition

Name _____ Date _____ Period _____
supporting Hyper-Threading Technology for PCs, or AMD Mobile Athelon or Turion 64 X2. For Macs
you might see PowerPC G5 or Xeon 5300.